

Chapter 3: Hardware components

Meridian IVR uses an Intel Altserver Altair motherboard mounted in a Magellan chassis. This platform is based on a scaleable, modular architecture which enables OEMs and custom solution providers to quickly access the latest enhancements in CPU/cache and memory technology. The modular design offers immense computing power, fast time to market, and quick configurability.

The Altserver accepts the full range of Intel's new generation 64-bit Pentium™ microprocessors. The Altserver architecture is a strobed, asynchronous memory bus designed to scale for any Pentium™ processor ranging from 60 MHz to 120 MHz. Meridian IVR 2.0/I supports 75 MHz and 100 MHz processors only.

Meridian IVR hardware components overview

The Meridian IVR 2.0/I system includes

- onboard Super VGA Video Controller with 1 Mbyte video DRAM and maximum resolutions of 1024x768 with 256 colors
- PS/2-style keyboard and mouse connectors
- 8-bus master slot (5 ISA/2 PCI/1 Hybrid) system baseboard
- onboard twin channel SCSI-2 controller
- Pentium 75 or 100 MHz CPU
- one parallel port and two 9-pin serial ports
- intelligent serial communications board (ISA), 8 ports per card
- host connectivity card (3270 SNA, 5250 SNA) (optional)
- 32 Mbyte system memory as base, upgradeable to a maximum of 112 Mbytes
- 2.5 Gbyte SCSI 1/2-inch cartridge tape drive
- 3.5-inch floppy drive
- 1.2 Gbyte fast SCSI-2 hard drive
- integrated intelligent UPS (optional)
- optional second hard drive for Fax Response option only
- 525-watt AC power supply
- keylock
- Ethernet PCI Network Interface Card (optional) provides connectivity to Thicknet, Thinnet (coax), and 10Base-T (twisted pair) network types
- Token Ring Network Interface Card (optional) provides connectivity to both Type 1 (shielded twisted pair) and Type 3 (unshielded twisted pair) network types. (The interface card is fully software configurable and supports both 4 and 16 Mbyte/second Token Ring transfer rates.)
- 4-port fax board (optional) provides four RJ-11 jacks per card, each of which supports one analog phone line.

Figure 3-1 shows the side view of the Meridian IVR application processor.

Figure 3-1
Application processor (AP) side view

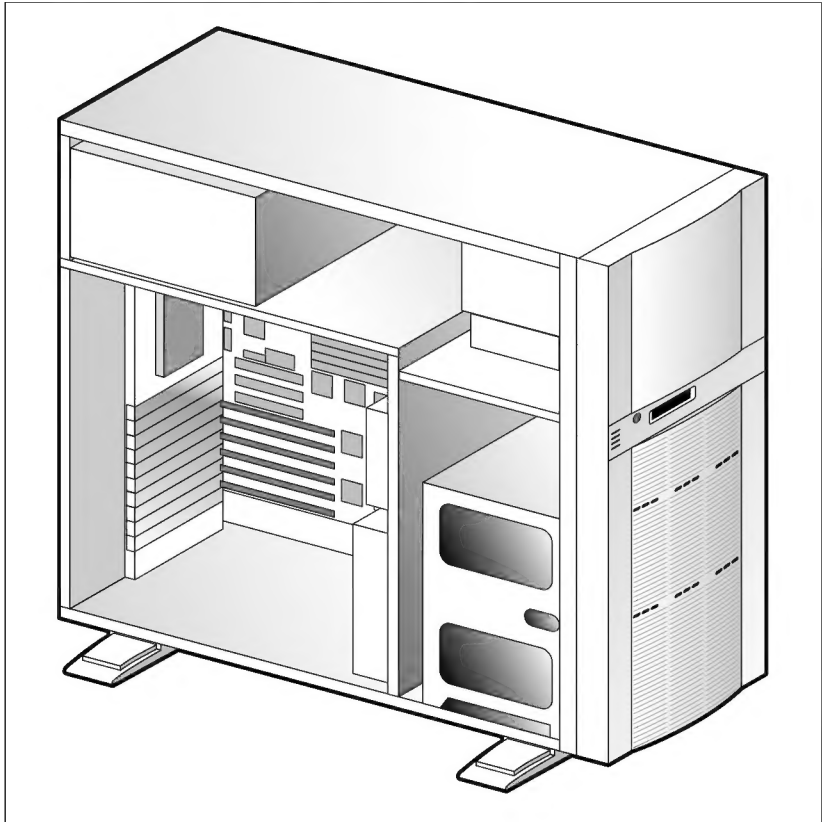
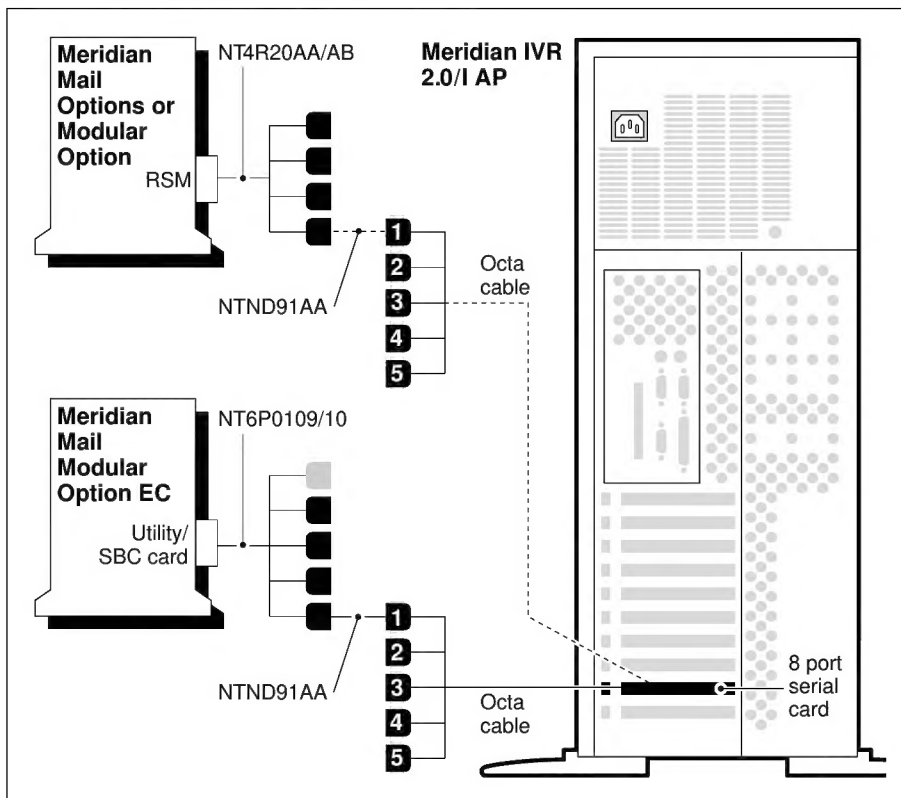


Figure 3-2 illustrates the Meridian IVR Release 2.0/I hardware components for a single application processor (up to 96 channels) configuration, when connected to a Meridian Mail system.

Figure 3-2
Meridian IVR Release 2.0/I configuration



Core hardware components

AC power supply

The application processor operates on an AC power supply.

Monitors

A 17-inch SVGA monitor is recommended for a Development system, and a 14-inch or 17-inch (optional) SVGA monitor is recommended for a Run-Time system.

Tape drive

The 2.5 Gbyte tape drive is used for software reinstallation, upgrades, and backup.

Serial communications card

This card provides eight serial RS-232 connections which can be used for a variety of purposes including host connectivity.

Remote support modem

The remote support modem is a 14 400 (v.32 bis) baud external modem.

Key lock security device

The software key lock is initialized by Nortel manufacturing with a custom serial number. The purpose of the software key lock is to ensure that the Meridian IVR software is installed on the system for which it was purchased.

UPS

An integrated intelligent uninterruptible power supply (UPS) is used to protect the system against interruptions in power. The UPS can sustain power for approximately 50 minutes for a fully loaded Meridian IVR system.

Additional hardware components

The following lists the additional hardware components which comprise the Meridian IVR Release 2.0/I system:

Fax modem

The Dialogic internal fax modem (VFX/40E) is used to support the Meridian IVR Fax Response. The internal Fax modem has the following features:

- ITU-T G3 compliant (T.4, T.30), ETSI NET/30 compliant
- 14 400 (v.17) (max), 9600, 7200, 4800, and 2400 bps
- Automatic Rate Adaptation (fallback)
- Bus compatibility: IEEE P996 ISA compatible (IBM PC XT/AT)
- Telephone Interface (Trunk Type): Loop start

Hard drive

A second 1.2 Gbyte SCSI hard drive is used for additional storage on systems with Meridian IVR Fax Response installed.

Ethernet card

The Ethernet adapter card is used to connect the Meridian IVR system to an Ethernet network wired with IEEE 802 10Base2 or 10Base5 coaxial cable, or 10Base-T twisted-pair cable.

Host connectivity cards

The Express High Performance Adapter (RS-232) card is used to support IBM mainframe connectivity.

The Madge Token-Ring card is used to support Token-Ring connectivity.

Printer

An HP LaserJet 4M plus with PostScript Option is recommended for Development systems. A DEC LA75S Dot matrix printer is recommended for Run-Time systems.

Audio Line Interface

The Audio Line Interface allows the transfer of voice prompts from a standard audio tape device to Meridian IVR. It is required when voice prompts recorded in a studio are loaded onto a Meridian IVR system via the Voice Prompt Editor at a later time.

Meridian Mail hardware system interface

This section provides an overview of the equipment that comprises the Meridian hardware system interface to the Meridian Mail voice processing platform.

Meridian 1 Switch

The interface to the telephone network is provided by the Meridian 1 switch. The Application Generator interacts with phone lines through the Meridian ACCESS Application Programming Interface (API). Notification of incoming calls, call hang-up, call transfer, and so on is passed to the Application Generator via the Meridian ACCESS API. A minimum of Meridian 1 X11 software Release 14.0 is required.

MSM and non-Nortel switches

Meridian IVR Release 2.0/I supports non-Meridian 1 switch connectivity (Simple Message Desk Interface [SMDI] system configurations) with any switch to which a Meridian Mail (GP or Message Service Module [MSM]) can be connected. This includes Nortel's DMS/SL-100 (BCS28 or later), and selected releases of switches from AT&T, Rolm, and NEC.

Meridian Mail module

The Meridian Mail module handles the call and voice processing activities such as Dual Tone Multi-Frequency (DTMF) collection, voice compression/decompression, and interface to the switching module. All Application Generator interaction with the Meridian Mail module is achieved through the Meridian ACCESS API Toolkit. A minimum of Meridian Mail Release 8 is required.

Global regulatory approvals

All new hardware is tested in order to comply with the regulatory standards for each country in which Meridian IVR is introduced.